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PATENT

Docket No. TUC920010116US1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Barry Fruchman, et al.)	
)	
Serial No.:	10/091,797)	
)	Group Art
Filed:	March 6, 2002)	Unit: 2157
)	
For:	MULTI-SESSION NO QUERY RESTORE)	
)	
Examiner:	Gregory G. Todd)	

AMENDMENT AND RESPONSE TO OFFICE ACTION

Mail Stop AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Examiner:

In response to the Office Action mailed on January 30, 2006, Applicants respectfully request the reconsideration of the present application in view of the following remarks and amendments.

In the Specifications:

Please replace the paragraph starting on line 67 of page 3 with the following rewritten paragraph:

FIG. 1 is a block diagram of a computer network system including a plurality of client systems with access to a storage pool of a SAN;

Please replace the paragraph starting on line 69 of page 3 with the following rewritten paragraphs:

FIG. 2 is an exemplary master restore table consistent with the present invention;

FIG. 3 is a schematic flow chart diagram illustrating one embodiment of a method of restoring data of the present invention;

FIG. 4 is a schematic flow chart diagram illustrating one embodiment of a method of coordinating access to stored data of the present invention; and

FIG. 5 is a data diagram illustrating one embodiment of a token of the present invention.

Please replace the paragraph starting on line 110 of page 5 with the following rewritten paragraph:

Also referencing FIGS. 3 and 4, when a client having appropriate storage software from a client system 103, 115 requests 305 a restore, the server 102 constructs 405 a master restore table associated with that particular restore request. In general, the master restore table includes portions of data to be restored and an associated location of those portions of data in the storage

pool 134. As the master restore table is being constructed 405, data restoration efforts may begin without waiting for the table to be completed.

Please replace the paragraph starting on line 116 of page 6 with the following rewritten paragraph:

Advantageously, as described more fully below with reference to FIG. 2, and with reference to FIG. 3, clients 107, 109, 111 and 117, 119, 121 of a plurality of client systems 103, 115 may participate in a restore effort by utilizing a master restore table to coordinate 310 access to data stored in the storage pool 134 such that duplicative restoration efforts from a plurality of client systems 103, 115 can be avoided.

Please replace the paragraph starting on line 121 of page 6 with the following rewritten paragraph:

Turning to FIG. 2 and with reference to FIG. 4, an exemplary master restore table 200 consistent with the invention that may be created and temporarily stored in a storage management server 102 or any device common to the system 100 is illustrated. The table 200 generally is used to track 410 portions of data to be restored and the associated restore media from the various storage devices 112, 114, 116 of the storage pool 134 where such portions of data are located. A host of clients 107, 109, 111 and 117, 119, 121 and client systems 103, 115 may be able to access the table 200 to optimize restore efforts from a plurality of client systems 103, 115. Although described in terms of columns and rows, a master restore table consistent with the invention may take a variety of forms.

Please replace the paragraph starting on line 129 of page 6 with the following rewritten paragraph:

The master restore table 200 may include a plurality of columns including: a first column 202 detailing the portions of data to be restored; a second column 204 detailing the location of such portions of data on associated media from various storage devices 112, 114, 116 of the storage pool 134; a third column 206 detailing a LAN-free path 140, 142 for accessing the associated storage media if such path exists, a fourth column 208 detailing a server-free path 140, 142 for accessing the associated storage media if such path exists, and a fifth column 210 detailing the status of whether an associated storage media has been processed for a given portion of data. Advantageously then, the fifth column tracks 410 the portions of data that have been processed by any one client in any one plurality of client systems 103, 115. In this way, clients or restore processes from any client system 103, 115 would be blocked 415 from restoring a portion of that data that had already been processed or restored. Accordingly, duplicative restoration efforts are automatically avoided.

Please replace the paragraph starting on line 160 of page 7 with the following rewritten paragraph:

Clients 107, 109, 111 or 117, 119, 121 with appropriate storage software may gain access to the restore table 200 by means of a restore token 500 as shown as a prophetic example in Fig. 5, e.g., a predetermined sequence of bits, which uniquely identifies the table that the server has built for a particular restore effort. In addition, each client 107, 109, 111 or 117, 119, 121 may gain access the restore table multiple times simultaneously. When the restore effort for a particular

particular restore request is complete, the original initiating client communicates with the storage management server 102 to delete the master restore table. The token 500 may then be available for other clients to use.

In the Drawings:

Please replace FIGS. 1-2 with the attached replacement drawing sheets. FIGS. 1 and 2 are amended with updated page numbering. FIG. 1 is also amended to annotate two LAN-free, server-free paths 140, 142. FIG. 3 is added to illustrate a restoring data method of the present invention. FIG. 4 is added to illustrate a coordinating access method of the present invention. FIG. 5 is added to illustrate a token.